



## Preface

# Drug therapy: predictors of response



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*Guest Editors*

Treatments are generally effective for the majority of individuals who suffer from mental disorders. Some patients seemingly respond to most treatments, and in still others there seems to be a specificity to their response that improves with certain treatments but not others.

Although the pharmacology of medications has been researched, it is not clear how this pharmacology relates to the reasons they are effective. For example, the ability to inhibit the reuptake of neurotransmitters is common to most (but not all) antidepressants. This effect occurs rather promptly after administration, but the clinical effect in treating depression begins only after a few weeks of treatment. Thus it has been postulated that the mechanism of action of these compounds in depression may be related to second messenger systems or neuronal resiliency and viability through trophic factors rather than their reuptake blockade property per se. Despite recent advances in neuropsychopharmacology, there is little knowledge regarding the pathophysiology of mental disorders.

Determining the manner in which disorders evolve would hopefully enable a clinician to choose the most likely treatment for an individual patient. Further research in the human genome project regarding mental disorders is an important step toward the elucidation of accurate prediction of treatment response and hopefully in the development of more specific treatments. However, until this research unfolds, clinicians are left with treatment decisions that are based more on experience than science.

We have assembled this issue of the *Psychiatric Clinics of North America* to present the state of the art regarding prediction of treatment response.

With an eye to the future, we asked Pickar to summarize the evolving field of pharmacogenomics. Neuroimaging techniques are providing clues not only to brain structure but to brain function, as well; Renshaw reviews the potential uses of these methodologies. Nierenberg and colleagues review treatment response in depression. Czernansky reviews prediction of response in schizophrenia. Substance abuse is a major public health problem; Ciraulo and colleagues review outcome predictors. Halvorson and Roth review the prediction of response in anxiety disorders. Psychopharmacological approaches to disorders of adolescents and children is still a young field; Emslie and colleagues review the predictors of response to treatment of mood disorders in this age group. Treatment algorithms are becoming useful for standardizing clinical treatment decisions. The STAR\*D program is an initiative intended to provide guidelines regarding approaches to treatment-resistant depression. The development and rationale of this research program—which has not yet been completed—is described by Fava and colleagues. A similar treatment approach for bipolar disorders may derive from a multicenter study of bipolar disorder patients; this program is reviewed by Thase.

Outcomes to treatment can be improved through better clinical decision making. We hope this issue will be of assistance to clinicians regarding their choices of treatments for their patients.

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